NETFLIX

IPv6 – Content Provider and Enterprise Challenges

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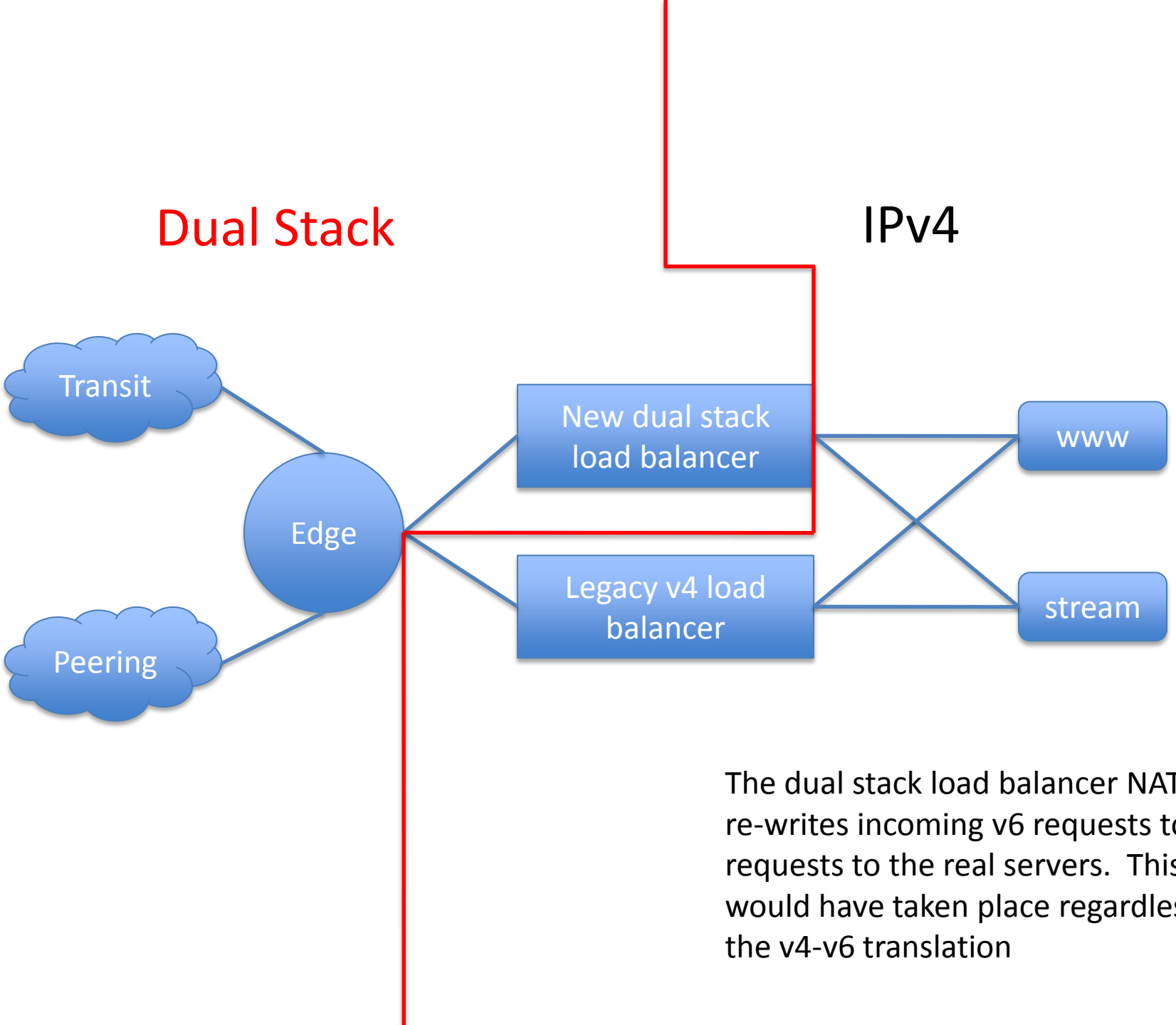
David Temkin – dtemkin@netflix.com

Two Months to IPv6

- The corporate network is easy
  - We already had device support
  - autoconfig makes rollout easy
  - Most of our developer community are on Macs, the rest are on XP SP3 or Vista

The production network

- Developer interest was strong; some were happy to turn IPv6 into a “hobby” project, which is how we got the Silverlight client deployed so quickly
- Load Balancers are easy
- Partners such as HE, nLayer, and Limelight were a big help



The dual stack load balancer NATs and re-writes incoming v6 requests to a v4 requests to the real servers. This NAT would have taken place regardless of the v4-v6 translation

Dual stack load balancing

- Traffic can originate from the client as v4 or v6
- VIPs can be both v4 and v6, however they are usually configured separately
- Back-end servers can be both v4 and v6, and depending on the vendor can be in the same VIP
- If your application already supports full in-line load balancing (proxy based) with header insertion IPv6 is easy!
- Citrix followed Cisco and made IPv6 protocol translation a free option; was originally a separate license
- A10, Citrix Netscaler, and F5 all support full IPv6 to IPv4 PT today

Netscaler Configuration Example

```
add ns ip6 FC00:00FC:1:2::/64 -type NSIP
add server real1.example.com 192.168.1.1
add server real2.example.com 192.168.1.2
add service real1 real1.example.com
add service real2 real2.example.com
add lb vserver ”ipv6-v6" HTTP FC00:00FC:1:2::1 80
bind lb vserver ipv6 real1.example.com
bind lb vserver ipv6 real2.example.com
```

Voila, you have a v6-v4 dual stack load balancer!

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Questions?

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